

## **METHOD OF PREDICTING AN EMPTY SEAT CONDITION IN AN OCCUPANCY SENSING SYSTEM**

### **ABSTRACT OF THE DISCLOSURE**

The present invention provides a method of predicting an empty seat condition for a vehicle seat having an occupancy sensing system with a sensor array assembly. The method includes the steps of determining a first resultant value based on the change between the differences among a first series of sensor readings taken from the sensor array over a predetermined period of time, and determining a second resultant value based on the change between the differences among a second series of sensor readings taken from the sensor array over a different predetermined period of time. The method also includes summing the first and second resultant values and determining if the summed value is negative and calculating the change in the first and second resultant values in terms of time to determine if the calculated change is greater than a predetermined value. Further, the method includes classifying the vehicle seat as empty if the summed value is negative and calculated change is greater than the predetermined amount.